

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2002-0053

NPDES NO. CA0078352

WASTE DISCHARGE REQUIREMENTS
FOR
TEXACO EXPLORATION AND PRODUCTION INC.
KERN RIVER OIL FIELD
KERN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. Texaco Exploration and Production Inc., (hereafter Discharger) a Delaware corporation, owns and operates an oil recovery and wastewater treatment and disposal system (hereafter Facility) that separates produced water from crude oil in the Kern River Oil Field. The Kern River Oil Field is in the Southern San Joaquin Valley, in Kern County near Bakersfield. The Facility is in Sections 5 and 9, T29S, R28E, MDB&M, as shown in Attachment A, a part of this Order. Up to 50.2 million gallons per day (mgd) of produced water is generated during oil production operations in the oil field. A portion of the treated wastewater is discharged to the Beardsley and Carrier canals.
2. The Facility treats wastewater prior to discharge to remove oil, grease, and inorganic sediments. Treatment consists of mechanical separation, sedimentation, and air floatation. The Facility reportedly has the capacity to treat a maximum of 50 mgd of wastewater for oil and grease removal.
3. Up to 16 mgd of the generated wastewater is converted to steam by cogeneration plants and steam generators and injected for oil recovery purposes. Steam injection wells are Class II injection wells permitted by the Division of Oil, Gas and Geothermal Resources (DOGGR). The cogeneration wastewater feed is softened for corrosion control before it is converted to steam. The softening process produces brine water that is disposed of by Class II injection wells. The cogeneration plants utilize reverse osmosis (RO) to treat water from five source water wells for nitrogen oxide emission control in the cogeneration plants. The RO reject water is also disposed of by injection wells permitted by the DOGGR. The source water is also treated and used in the offices and plants as drinking water. The Department of Health Services, Office of Drinking Water, (DHS) permits the potable water treatment system and the Kern County Environmental Health Services permits the source water wells.
4. The remaining wastewater is discharged through the Facility to a combination of the Beardsley Canal, the Carrier Canal, Cawelo Water District's Reservoir B, and injection wells. The discharge to Cawelo Water District's Reservoir B is regulated by WDRs Order No. 95-031 (NPDES No. CA0082295).

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5. Discharge to the Beardsley Canal occurs in the NE ¼ of the SW ¼ of Section 9, T29S, R28E, MDB&M (Discharge 001). Discharge to the Carrier Canal occurs in the NW ¼ of the SE ¼ of Section 9, T29S, R28E, MDB&M (Discharge 002). Each discharge location is shown in Attachment A, a part of this Order.
6. Chevron USA, Inc. (hereafter Chevron) owns and operates a similar facility adjacent to the one described in this Order. The adjacent facility discharges produced water from the Kern River oil field to the Beardsley and Carrier canals. Chevron's discharge to the Beardsley Canal is approximately 350 yards upstream from Discharge 001. Chevron's discharge to the Carrier Canal is also upstream from Discharge 002, as shown in Attachment C. Chevron's discharges to the Beardsley and Carrier canals are regulated by WDRs Order No. R5-2002-0053 (NPDES Permit No. CA0080853).
7. ARCO Western Energy (hereafter ARCO) owned and operated an oil production and wastewater treatment facility adjacent to the Discharger and discharged treated produced water to the Beardsley and Carrier canals. ARCO's discharges were downstream from Discharge 001 in the Beardsley Canal and downstream from Discharge 002 in the Carrier Canal. ARCO's discharges to the Beardsley and Carrier canals were regulated by WDRs Order No. 97-120 (NPDES Permit No. CA0078280). ARCO ceased discharging to the Beardsley and Carrier canals in June 1999. On 15 September 2000, the Regional Board adopted Rescinding Waste Discharge Requirements Order No. 5-00-194, rescinding ARCO's WDRs Order No. 97-120 and NPDES Permit No. CA0078280.
8. Waste Discharge Requirements Order No. 97-124, adopted on 20 June 1997, prescribes requirements for the discharge of up to 43 mgd per day of produced water from Discharge 001 and 002. The Discharger submitted a Report of Waste Discharge (RWD) dated 10 December 2001, and applied for permit renewal to discharge waste under the National Pollutant Discharge Elimination System (NPDES) from its facility.
9. On 9 October 2001, the parent companies of Chevron and Texaco merged. The assets of the Discharger and Chevron will not be combined from a legal standpoint until sometime in 2003 at the earliest. The Discharger has indicated that its Kern River oil field facilities will be modified by sometime in early 2002 to combine the discharge of TEPI and Chevron, and eliminate the Chevron water treatment plant. However, Chevron's discharge points may still be used as outfalls for other authorized discharges.
10. The RWD and self monitoring reports describe the discharge as follows:

Daily Maximum Flow: 9.80 mgd
Daily Average Flow: 1.29 mgd

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<u>Constituent</u>	<u>Units</u>	<u>Concentration</u>
EC	µmhos/cm	1098
Chloride	mg/L	172.1
Boron	mg/L	1.23
Oil and Grease	mg/L	11.7

11. The Beardsley Canal is lined and originates on the Kern River at the Beardsley Weir, about one mile upstream of Discharge 001. It becomes the Lerdo Canal at Seventh Standard Road near Oildale, approximately 5 miles downstream of Discharge 001. The Lerdo Canal is unlined and traverses a portion of the Poso Groundwater Hydrographic Unit.
12. Wastewater is discharged intermittently to the Beardsley Canal. Maintenance may be performed on the Beardsley and Lerdo canals for a period of up to four weeks in December or January annually. During this period, the North Kern Water Storage District (canal owner) may require that there be no discharges to the Beardsley Canal. In these instances, the Discharger may discharge to the Carrier Canal, with permission and agreement of Carrier Canal owners. The last discharge to the Carrier Canal was in January 2001 for about 3 weeks. Similar short-term discharges to the Carrier Canal occur in December or January of most years. During the lowest flow periods in the Beardsley Canal (roughly November through February), the Discharger may discharge to injection wells and to Cawelo Water District's Reservoir B.
13. The Cross Valley Canal conveys California Aqueduct water to the Beardsley Canal, via Conduit "A," to supplement Kern River water during the irrigation season (see Attachment C). Water from Conduit "A" enters the Beardsley Canal downstream of the discharge points of the two oil companies, providing additional dilution.
14. The Carrier Canal originates on the Kern River, below Southern California Edison Kern River Powerhouse No. 1, at Rocky Point Weir immediately upstream of Discharge 002. The canal serves as a significant source of agricultural water supply for the Kern Delta Water District (KDWD). Total agricultural land served by the Carrier Canal is approximately 72,000 acres. It is unlined, parallel to the Kern River Channel, and is frequently diverted into the Kern River at several locations. If discharge occurs to the Carrier Canal, the City of Bakersfield coordinates with the Discharger to ensure no wastewater enters the Kern River.
15. The Carrier Canal may also supply water to the Kern County Water Agency's (KCWA) Water Purification Plant for municipal use. The City of Bakersfield coordinates with the Discharger and the KCWA to ensure no wastewater enters the purification plant. If wastewater is discharged to the Carrier Canal, KCWA receives prior notification to ensure that other sources of raw water for the purification plant are used for the duration of the discharge. The Carrier Canal flows to a point known as "Four Weirs," where it is diverted to several unlined canals for irrigation. Prolonged transport of wastewater from the Discharger in the unlined Carrier Canal and related conveyance canals could result in groundwater degradation in the canal service areas.

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16. The Beardsley and Lerdo canals serve as a significant source of agricultural water supply to the North Kern Water Storage District and Cawelo Water District. Total agricultural land served by the Beardsley and Lerdo canals within these two Districts is an estimated 110,000 acres, of which about 40,000 acres are permanent crops that are boron-sensitive. The Beardsley Canal also serves approximately 10,000 acres of land south of these Districts and within the sphere of influence of the City of Bakersfield.
17. The Beardsley, Carrier, Lerdo, and their distributary irrigation canals; Poso Creek, Kern River, and surface waters tributary thereto, are waters of the United States.
18. Maintenance of acceptable boron levels in the irrigation supply is essential to the continued success of growing boron-sensitive crops in the service area.
19. The Beardsley Canal's service area has historically received water of excellent quality. The Discharger collects daily receiving water samples from the canal and submits the monitoring reports on a monthly basis. From January 2000 to November 2001 upstream flows in the Beardsley Canal above discharges from Chevron and Discharge 001 exhibited the following characteristics:

<u>Constituent</u>	<u>Units</u>	<u>Average Concentration</u>
EC	µmhos/cm	167
Chlorides	mg/L	7.5
Boron	mg/L	0.15

20. The Discharger collects daily samples from the Beardsley Canal and submits the results monthly. The monitoring reports show the discharge has complied with the receiving water limitations of Order No. 97-124. From January 2000 to November 2001, downstream flows in the Beardsley Canal below the discharges from Chevron and Discharge 001 exhibited the following characteristics:

<u>Constituent</u>	<u>Units</u>	<u>Average Concentration</u>
EC	µmhos/cm	199
Chlorides	mg/L	14.7
Boron	mg/L	0.19

21. Flows in Conduit "A," before it connects to the Beardsley Canal, exhibit the following characteristics:

<u>Constituent</u>	<u>Units</u>	<u>Average Concentration</u>
EC	µmhos/cm	546
Chlorides	mg/L	96
Boron	mg/L	0.22

22. The Regional Board adopted a *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (hereafter Basin Plan), which designates beneficial uses, establishes narrative and numerical water quality objectives, and contains implementation plans and policies for protecting all waters of the Basin. The Basin Plan includes plans and policies of the State Water Resources Control Board (SWRCB) incorporated by reference. Pursuant to section 13263(a) of the California Water Code (CWC), waste discharge requirements must implement the Basin Plan.
23. The Basin Plan contains the following maximum salinity limitations for industrial discharges to surface waters or stream channels:

<u>Constituent</u>	<u>Units</u>	<u>Concentration</u>
EC	$\mu\text{mhos/cm}$	1,000
Chlorides	mg/L	175
Boron	mg/L	1.0

24. Resolution No. 82-136, a Basin Plan amendment for discharge of oil field wastewater, allows salinity concentrations in excess of the Basin Plan effluent limitations for discharges to surface waters. To qualify, the discharge cannot substantially affect water quality or cause a violation of water quality objectives.
25. The Basin Plan prohibits the use of surface water to dilute wastes for the primary purpose of meeting waste discharge requirements. Blending of wastewater with surface water to promote the beneficial reuse of wastewater in water short areas may be allowed where the Regional Board determines such reuse is consistent with other policies. The Southern San Joaquin Valley is a water short area, as substantial quantities of water are imported to support agriculture and other water uses. The discharge is consistent with State and Regional Board policies, including other policies in the Basin Plan and State Board Resolution No. 77-1 - "Policy with Respect to Water Reclamation in California."
26. Based on public hearings in October 1982 and March 1985, the Regional Board determined that a change in receiving water quality to the following maximum concentrations is consistent with Resolution No. 82-136, State Board Antidegradation Policy, and long-term agricultural use: EC of 700 $\mu\text{mhos/cm}$; chloride of 175 mg/L; and boron of 0.5 mg/L, provided that groundwater degradation be controlled as specified in the Basin Plan.
27. The Lerdo canal, its tributaries, and reclamation areas served by the canal northwest of the Kern River Oil Field are within the Kern River and Poso Groundwater Hydrographic Units. The Basin Plan requires that salinity from all sources shall not increase groundwater EC in the Kern River unit by more than 5 $\mu\text{mhos/cm}$ per year, and groundwater EC in the Poso unit by more than 6 $\mu\text{mhos/cm}$ per year.
28. Depth to the first encountered groundwater (unconfined) in the area ranges from about 100 feet below ground surface (bgs) in Bakersfield to about 600 feet bgs in the northeastern service area of

the Cawelo Water District. The general groundwater gradient north of the Kern River is toward the northwest.

29. The quality of groundwater in areas recharged by the Carrier and other tributary irrigation canals varies from an EC of about 200 $\mu\text{mhos/cm}$ in the immediate Kern River fan to over 3000 $\mu\text{mhos/cm}$ near the Kern Lake Bed. The majority of the groundwater contains total dissolved solids concentrations of 120 to 980 mg/L, with an average of about 240 mg/L within the urban Bakersfield area.
30. The Facility and discharges are within the Kern Delta Hydrologic Area (No. 557.10), as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. Groundwater underlying the Facility and Discharges 001 and 002 is within Groundwater Detailed Analysis Unit No. 257, as depicted in the Basin Plan.
31. The beneficial uses of the underlying groundwater in the vicinity and downstream of the discharge points are municipal and domestic supply, agricultural supply, industrial service supply, and water contact recreation [supply].
32. The beneficial uses of the Carrier Canal are municipal and domestic supply, agricultural supply, and groundwater recharge.
33. The beneficial uses of the Beardsley and Lerdo canals are agricultural supply and groundwater recharge.
34. The beneficial uses of Poso Creek are agricultural supply, water contact recreation, noncontact water recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat, groundwater recharge, and freshwater replenishment.
35. The beneficial uses of the Kern River, below Southern California Edison Kern River Powerhouse No. 1, are municipal and domestic supply, agricultural supply, industrial service supply, industrial process supply, hydropower generation, water contact recreation, noncontact water recreation, warm freshwater habitat, wildlife habitat, rare, threatened, or endangered species, and groundwater recharge.
36. The Beardsley and Carrier canals each have numerous cross connections with other canals downstream of the discharge points. The beneficial uses of these canals are similar to those of the Beardsley and Carrier canals.
37. The Discharger has measured the pH of produced water from the Kern River oil field as low as 5.5. The low pH is caused by CO_2 gas dissolved in the water, which forms carbonic acid. Dilution capacity in the Beardsley and Carrier canals is sufficient that pH in the receiving water will not be reduced lower than 6.5, and beneficial uses of the receiving water will not be adversely affected by the low pH.

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38. In order to ensure that the assimilative capacity of the Beardsley canal is not exceeded, the Discharger, ARCO, and Chevron developed and followed a mutually agreed to Management Plan (MP) that governs discharges to the Beardsley and Carrier canals. The MP, executed by all parties on 3 December 1992, required that upstream receiving water and effluent samples be collected and analyzed by a State certified laboratory contractor (hereafter contractor). The contractor determined the maximum volume of wastewater each discharger could discharge and ensure the receiving water quality downstream of the discharges remained less than 95% of the permitted limitations. The Regional Board reviewed the MP in November 1992 and the Discharger began implementing it in December 1992. In March 1997, the MP was amended by deleting Section D, page 6, which discussed the opportunity for additional discharges to the Beardsley Canal.
39. The Management Plan implemented on 3 December 1992 and amended in March 1997, governs the discharge of three distinct entities to the Beardsley Canal. Since 1997, ARCO has ceased discharging, and it is anticipated that Chevron may also cease discharging. The 1997 MP no longer accurately describes the discharge conditions to Beardsley Canal. The Discharger and Chevron need to submit a revised Management Plan describing the methods employed to ensure that receiving water downstream of the discharges remains within permitted limitations and that the assimilative capacity of the Beardsley Canal is not exceeded.
40. The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified this discharge as a minor discharge.
41. USEPA adopted the National Toxics Rule (NTR) on 5 February 1993 and the California Toxics Rule (CTR) on 18 May 2000. These Rules contain water quality standards applicable to this discharge. The State Water Resources Control Board, on 26 April 2000, adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (hereafter referred to as the Implementation Policy) that contains guidance on the implementation of the NTR and the CTR.
42. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard. Therefore, this Order contains provisions that:
 - a. Require the discharger to provide information as to whether the levels of priority pollutants in the discharge, as specified in the NTR and CTR, cause or contribute to an in-stream excursion above a water quality objective;
 - b. If the discharge has a reasonable potential to cause or contribute to an in-stream excursion above a water quality objective, requires the Discharger to submit information to calculate effluent limitations for those constituents; and

- c. Allows the Regional Board to reopen this Order and include effluent limitations for those constituents.
43. On 27 February 2001, the Regional Board issued a request pursuant to Water Code Section 13267 for the Discharger to submit Priority Pollutant Monitoring Data to comply with the Implementation Policy. On 4 October 2001, the Discharger submitted the first of four reports required by this request. The report showed that dioxin congeners were non-detect in the Discharger's dry weather effluent.
44. The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution No. 68-16. This Order provides for no increase in the volume and mass of pollutants discharged. The antidegradation policy requires that where existing quality of water is better than quality established in policies such as the Basin Plan, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to people of the State, and will not unreasonably affect present and anticipated beneficial use of such water. The Discharger supplies irrigation water that, after blending with other supplies, has been a benefit to the farmers in the area. The increase in pollutants discharged will not cause significant impact on the beneficial uses of groundwater and surface waters. The continued development and processing of oil supplies, and the use of the water for irrigation, both benefit the people of the State.
45. Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.
46. Effluent limitations established pursuant to 40 CFR 435.50, et seq. (Oil and Gas Extraction Point Source Category, Agricultural and Wildlife Water Use Subcategory) are applicable to this discharge.
47. Federal Regulations for storm water discharges were promulgated by the USEPA on 16 November 1990 (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities, which discharge storm water associated with industrial activity (storm water), to obtain NPDES permits and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate industrial storm water pollution. These regulations apply to the Discharger.
48. Section 13267 of the California Water Code (CWC) states, in part, that:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of discharging, or who proposes to discharge waste outside of its region that could affect the quality of waters of the state within its region shall furnish, under penalty of

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perjury, technical or monitoring program reports which the regional board requires. The burden, including costs of these reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

49. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. R5-2002-0053 are necessary to assure compliance with these waste discharge requirements. The Discharger operates the Facility that discharges waste subject to this Order.
50. The action to adopt an NPDES permit for the existing discharge to the Beardsley and Carrier canals is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.), in accordance with Section 13389 of the California Water Code.
51. The Regional Board has considered the information in the attached Fact Sheet, a part of this Order, in developing the findings, terms, and conditions of this Order.
52. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
53. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.
54. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. 97-124 is rescinded and that, pursuant to CWC Sections 13263, 13267, 13377, and 13383, Texaco Exploration and Production Inc., its agents, successors, and assigns in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. Discharge of treated waste at a location or in a manner different from that described in Finding Nos. 3, 4, and 5 is prohibited.
2. The discharge of wastewater to the Kern River is prohibited.
3. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Standard Provision A.13.

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4. Discharge of wastewater to the Carrier Canal is prohibited when the canal is being used as a water supply source for municipal use and unless necessary during shutdown of the Beardsley Canal.
5. The blending of wastewater with groundwater from sources other than oil field production activities for the purpose of increasing available assimilative capacity is prohibited unless it does not constitute a waste and unreasonable use of that groundwater.
6. The discharge of waste pollutants into surface waters from any source other than wastewater associated with the oil production process is prohibited.
7. Discharge of waste classified as 'hazardous' as defined in Section 2521(a) of Title 23 CCR, Section 2510, et seq., or 'designated', as defined in Section 13173 of the California Water Code, is prohibited.

B. Effluent Limitations:

1. ~~The combined daily maximum discharge of the Discharger and Chevron (NPDES No. CA0080853) to the Beardsley Canal shall not exceed 50.2 million gallons or the assimilative capacity in the receiving water, whichever is less.~~
2. ~~The combined daily maximum discharge of the Discharger and Chevron (NPDES No. CA0080853) to the Carrier Canal shall not exceed 15.2 million gallons or the assimilative capacity in the receiving water, whichever is less.~~
3. Discharge 001 and 002 shall fully comply with the Management Plan submitted by the Discharger and approved by the Executive Officer, as required by Provision No. E.4.
4. Effluent shall not exceed the following limitations:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
EC	µmhos/cm	1,500	2,000
Chlorides	mg/L	275	300
Boron	mg/L	2.0	2.0
Oil and Grease	mg/L	--	35

5. The discharge shall not have a pH less than 5.5 or greater than 8.3.

C. Receiving Water Limitations:

Receiving Water Limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit.

Discharge
prohibited
per special
order

R5-2005-0136

Limit 18.0 MGD
per special
order

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The discharge, alone or in combination with other sources, shall not cause the following in canal waters:

1. Concentrations of dissolved oxygen to fall below 5.0 mg/L.
2. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on objects in the water.
3. Oils, greases, waxes, floating material (liquids, solids, foams, and scums), or suspended material to create a nuisance or adversely affect beneficial uses.
4. Aesthetically undesirable discoloration.
5. Fungi, slimes, or other objectionable growths.
6. The increase in turbidity to be:
 - a. More than 1 Nephelometric Turbidity Unit (NTU) where natural turbidity is between 0 and 5 NTU.
 - b. More than 20 percent where natural turbidity is between 5 and 50 NTU.
 - c. More than 10 NTU where natural turbidity is between 50 and 100 NTU.
 - d. More than 10 percent where natural turbidity is greater than 100 NTU.
7. The ambient pH to fall below 6.5, exceed 8.3, or change by more than 0.3 units.
8. The ambient temperature to increase more than 5 °F or to be altered to a degree that adversely affects beneficial uses.
9. Deposition of material that causes nuisance or adversely affects beneficial uses.
10. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in Title 22, CCR; that harm human, plant, animal, or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
11. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses.
12. Violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board pursuant to the CWA and regulations adopted thereunder.

13. Constituents to exceed the following concentrations:

<u>Constituents</u>	<u>Units</u>	<u>Daily Maximum</u>
EC	µmhos/cm	700
Chlorides	mg/L	106
Boron	mg/L	0.5

D. Groundwater Limitations

The discharge, in combination with other waste sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality, except for EC. In no case shall the discharge in combination with other sources, cause underlying groundwater in the Kern River Groundwater Hydrographic Unit to increase by more than 25 µmhos/cm, and in the Poso Groundwater Hydrographic Unit by more than 30 µmhos/cm, over any five-year period.

E. Provisions:

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)*, dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as *Standard Provision(s)*.
2. The Discharger shall comply with Monitoring and Reporting Program (MRP) No. R5-2002-0053, which is a part of this Order, and any revisions thereto as ordered by the Executive Officer.

When requested by USEPA, the Discharger shall complete and submit Discharge Monitoring Reports. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger Self Monitoring Reports.

3. If the Regional Board determines that specific pollutants in the discharge have reasonable potential to cause or contribute to an exceedance of a water quality objective, this Order will be reopened for consideration of additional or revision of appropriate numerical effluent or receiving water limitations for the problem constituents.
4. By 1 July 2002, the Discharger shall submit for Executive Officer approval an updated version of the Management Plan to assure that the combined and individual discharges from the Discharger and Chevron do not cause a violation of receiving water limitations. Upon Executive Officer approval the Discharger shall comply with the terms of the updated MP. In the event that discharges to either canal cause violations of receiving water limitations and it is not possible to tell which of the two dischargers is causing violation of the limitations or the terms of the MP during the violation, both parties shall be responsible on a pro rata basis,

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based on their 3-month average discharge volumes, to the extent that the cause of the receiving water limitation violation is a result of the subject discharges. Any proposed amendments to the MP shall be submitted for Executive Officer approval at least 120 days prior to the planned execution of the amendment. If the amendment may affect compliance with this Order, this Order will be reopened for consideration of additional or revision of appropriate conditions to assure continued compliance.

5. The Discharger shall, in coordination with the City of Bakersfield, assure that all downstream water districts and the Kern County Water Agency are notified at least **48 hours** prior to any discharge to the Carrier Canal.
6. Prior to making any change in the discharge point, place of use, or purpose of the wastewater, the Discharger shall obtain approval of or clearance from the State Water Resources Control Board (Division of Water Quality and Water Rights).
7. The Discharger shall employ best practicable treatment and control (BPTC), including proper operation and maintenance, to comply with this Order.
8. This Order may be reopened, and effluent limitations may be added, deleted, or modified if new regulations or information become available. The Regional Board may consider inclusion of a compliance time schedule within the bounds of the applicable regulations if the Discharger is not able to meet a new and more stringent discharge requirement immediately.
9. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. To demonstrate compliance with sections 415 and 3065 of Title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
10. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision

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D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

11. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
12. A copy of this Order shall be kept at the site for reference by personnel operating the Facility. Key operating personnel shall be familiar with its contents.
13. The Regional Board will review this Order periodically and will revise requirements when necessary.
14. This Order expires on **26 April 2007**, and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than **28 October 2006**, 180 days in advance of such date in application for renewal of waste discharge requirements if it wishes to continue the discharge.

I, GARY M. CARLTON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region on 26 April 2002.


GARY M. CARLTON, Executive Officer

GEA:fmc:4/26/02

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2002-0053

NPDES NO. CA0078352

FOR
TEXACO EXPLORATION AND PRODUCTION INC.
KERN RIVER OIL FIELD
KERN COUNTY

Specific sample station locations shall be established with concurrence of the Regional Board's staff, and the Discharger shall attach a description of the stations to this Monitoring and Reporting Program. All analyses shall be performed in accordance with the latest edition of *Guidelines Establishing Test Procedures for Analysis of Pollutants*, promulgated by EPA (40 CFR 136) or other procedures approved by the Regional Board. In reporting data, the Discharger shall indicate whether any analysis was performed using a method not in conformance with EPA's Guidelines.

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes are discharged. Effluent samples shall be representative of the volume and quality of the discharge. The time of collection of samples shall be recorded. Effluent monitoring should include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>daily max</u>	<u>CARRIER</u>
Flow Rate ¹	mgd	Measured	Continuous	Beardsley 50.2	15.2
Electrical Conductivity @ 25 °C	µmhos/cm	Grab	Weekly	1,500	2,000
Boron	mg/L	Grab	Weekly	2.0	2.0
Chlorides	mg/L	Grab	Weekly	275	300
Oil and Grease ²	mg/L	Grab	Weekly	—	35
pH	pH units	Grab	Weekly	5.5-8.3	

¹ A summary of the mass balance calculations must be submitted with the results of the flow measurements to describe the assimilative capacity of the canal(s) during the monitoring period.

² Four composite grab samples in a 45-minute period.

The Discharger shall coordinate to ensure that samples are collected on the same date and at approximately the same time as those collected for the Chevron discharge.

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge the Discharger shall monitor and record data for all of the constituents listed above, after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record the data more often than twice the frequencies listed in the schedule.

If results of monitoring a pollutant appear to violate monthly average effluent limitations, the frequency of sampling must be increased to daily until compliance is verified. If effluent monitoring detects a pollutant at concentrations greater than a daily maximum limitation, the Discharger shall resample and reanalyze the discharge immediately after receiving knowledge of the exceedance. The frequency of sampling must be increased to daily until compliance is verified.

CALIFORNIA TOXICS RULE EFFLUENT MONITORING

A. Priority Pollutants

not semi annual

The Discharger shall monitor the effluent for priority pollutants ~~semiannually~~. Priority pollutants are defined as USEPA priority toxic pollutants, and consist of the constituents listed in the most recent National Toxics Rule and California Toxics Rule. Two samples are required. One sample shall be collected in **April 2002 or 2003**. The other sample shall be collected in **October 2002**. Results of sampling shall be submitted by the **first day of the second month** following sampling. Reporting shall conform with *Policy for Implementation of Toxics Standards for Inland Surface Waters, Bays, and Estuaries of California* Reporting Requirements, Section 2.4 et seq. Effluent samples must be analyzed for pH and hardness in order to calculate translators, which are needed for pollutants that are hardness and/or pH dependent. All analyses shall be performed at a laboratory certified by the California Department of Health Services.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Suggested Test Method¹</u>
Volatile Organics	µg/L	Grab	EPA 8260B ²
Semi-Volatile Organics	µg/L	Grab	EPA 8260B ²
	µg/L	Grab	EPA 8270C ²
Inorganics	µg/L	Grab	EPA 6020 ²
	µg/L	Grab	EPA 7196A ²
Pesticides	µg/L	Grab	EPA 8081A ²
PCBs	µg/L	Grab	EPA 8082 ²

¹ Alternate USEPA approved test methods may be used with approval from the Executive Officer.

² Report all detected peaks.

B. Dioxin

The Discharger shall test for each of the 17 TCDD congeners listed in Table 4, *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Implementation Policy). The Discharger shall report the analytical results of the effluent monitoring for each congener, including the quantifiable limit and the minimum detection level (MDL), and the measured or estimated concentration. The Discharger shall multiply each measured or estimated congener concentration by its respective toxicity equivalence factor (TEF) value and report the sum of these values. The Discharger must monitor effluent for the presence of the 17 congeners once during

dry weather and once during wet weather for one year during the next three years. The results of the dry weather sample were submitted on 4 October 2001. Results of wet weather sampling shall be submitted by the **first day of the second month** following sampling. All results must be submitted no later than **1 March 2004**. Reporting shall conform with Implementation Policy Reporting Requirements Section 2.4 et seq.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Samples shall be collected at approximately the same time as the collection of effluent samples. Receiving water monitoring shall include at least the following and be performed at the sample stations associated with the approved discharge point in use:

<u>Sampling Station</u>	<u>Description</u>
R-1	Beardsley Canal immediately downstream from Beardsley Weir
R-2	Beardsley Canal immediately upstream from the Manor Street crossing
R-1'	Conduit "A" immediately upstream from Beardsley Canal
R-2'	Beardsley Canal at Olive Drive
R-3	Kern River immediately upstream from Rocky Point Weir
R-4	Carrier Canal immediately upstream from the Manor Street crossing

<u>Discharge</u>	<u>Sample Stations</u>
Beardsley Canal (001)	R-1 & R-2; or R-1, R-1' & R-2' ¹
Carrier Canal (002)	R-3 & R-4

¹ Applicable during periods when California Aqueduct water is being conveyed to the Beardsley Canal via the Cross Valley Canal and Conduit "A."

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> Daily MAY
Flow	mgd	Measured	Daily ¹
EC	µmhos/cm	Grab	Weekly 700
Boron	mg/L	Grab	Weekly 0.5
Chlorides	mg/L	Grab	Weekly 106
pH	pH units	Grab	Weekly

¹ When the combined discharge flows from the Discharger and Chevron are less than or equal to 10 percent of Beardsley Canal flows, monitoring frequency may be weekly.

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TEXACO EXPLORATION AND PRODUCTION, INC.
KERN RIVER OIL FIELD
KERN COUNTY

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In conducting the receiving water sampling, a log shall be kept of the receiving water conditions at Stations R-1 and R-2 and 250 feet upstream and downstream of the discharge point. Attention shall be given to the presence or absence of:

- | | |
|---------------------------------------|--|
| a. Floating or suspended matter | b. Discoloration |
| c. Bottom deposits | d. Aquatic life |
| e. Visible films, sheens, or coatings | f. Fungi, slimes, or objectionable growths |
| g. Potential nuisance conditions | |

Notes on receiving water conditions shall be summarized in the monitoring report.

REPORTING

Monitoring results shall be submitted to the Regional Board by the **1st day of the second month** following sample collection. Quarterly monitoring results shall be submitted by the **1st day of the second month** following each calendar quarter. Annual monitoring results shall be submitted by **1 February** of each year.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly averages, and medians should be determined and recorded.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring form.

By **1 February** of each year, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names and telephone numbers of persons to contact regarding the Facility for emergency and routine situations.
- b. A statement certifying when monitoring instruments and devices were last calibrated (for purposes of assuring compliance with this Order), including identification of who performed the calibration (Standard Provision C.6).
- c. A statement certifying whether the current operation and maintenance manual and contingency plan reflect the Facility as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

MONITORING AND REPORTING PROGRAM NO. R5-2002-0053
TEXACO EXPLORATION AND PRODUCTION, INC.
KERN RIVER OIL FIELD
KERN COUNTY

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The Discharger shall also submit an annual report to the Regional Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Discharger shall implement the above monitoring program on the first day of the month following the effective date of this Order.

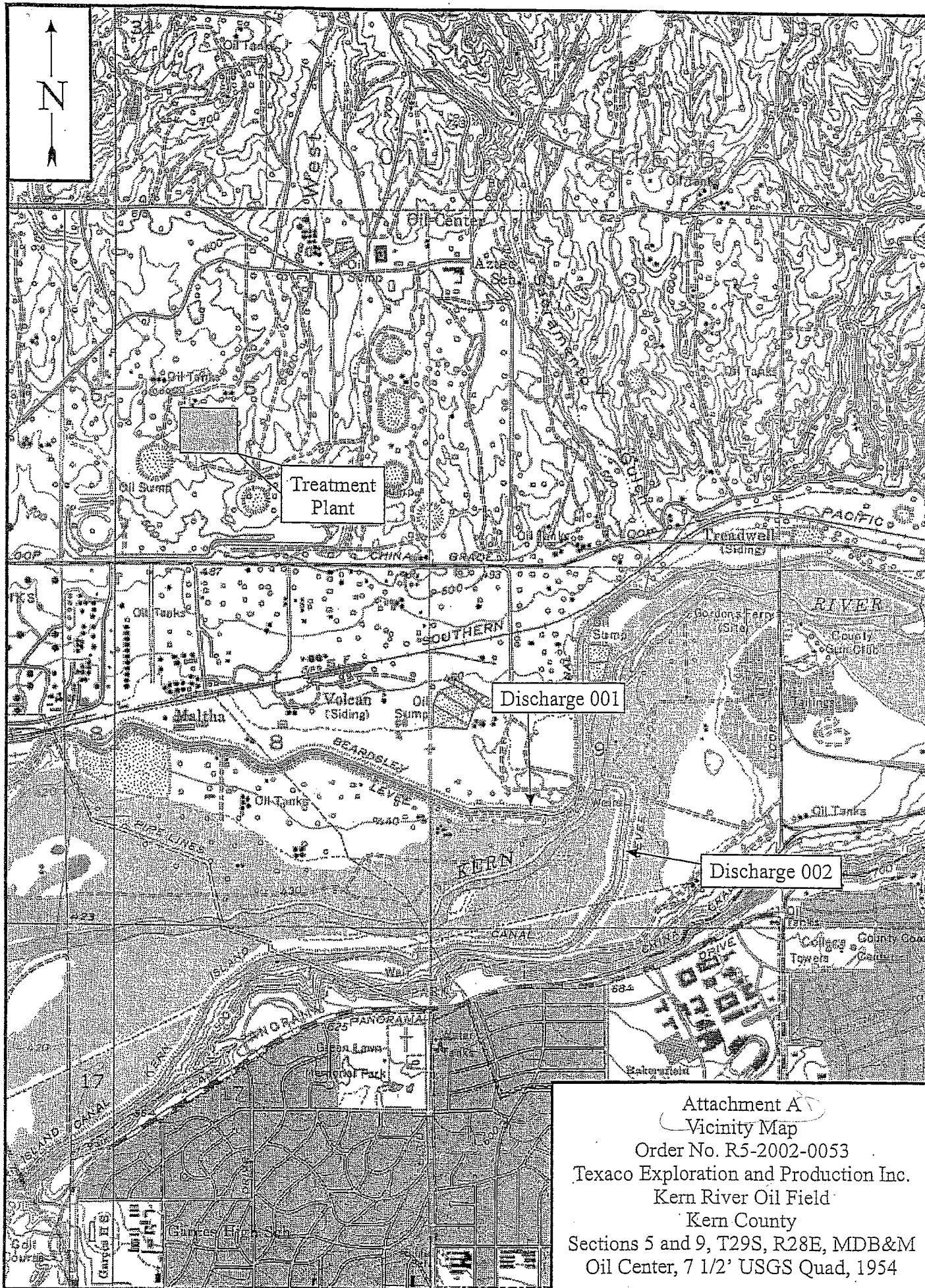
Ordered by:


GARY M. CARLTON, Executive Officer

26 April 2002

(Date)

GEA:fmc:4/26/02



Attachment A
Vicinity Map

Order No. R5-2002-0053

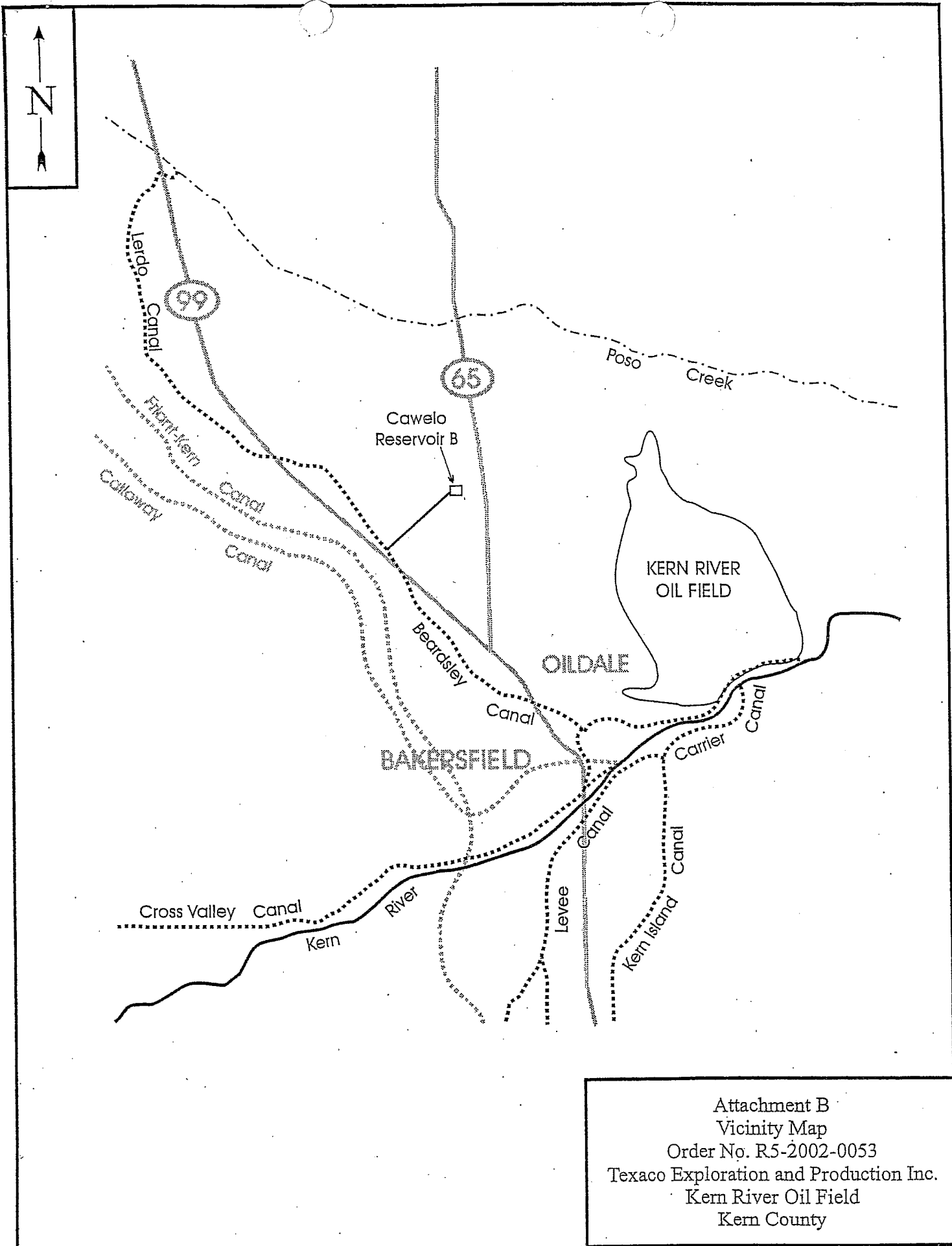
Texaco Exploration and Production Inc.

Kern River Oil Field

Kern County

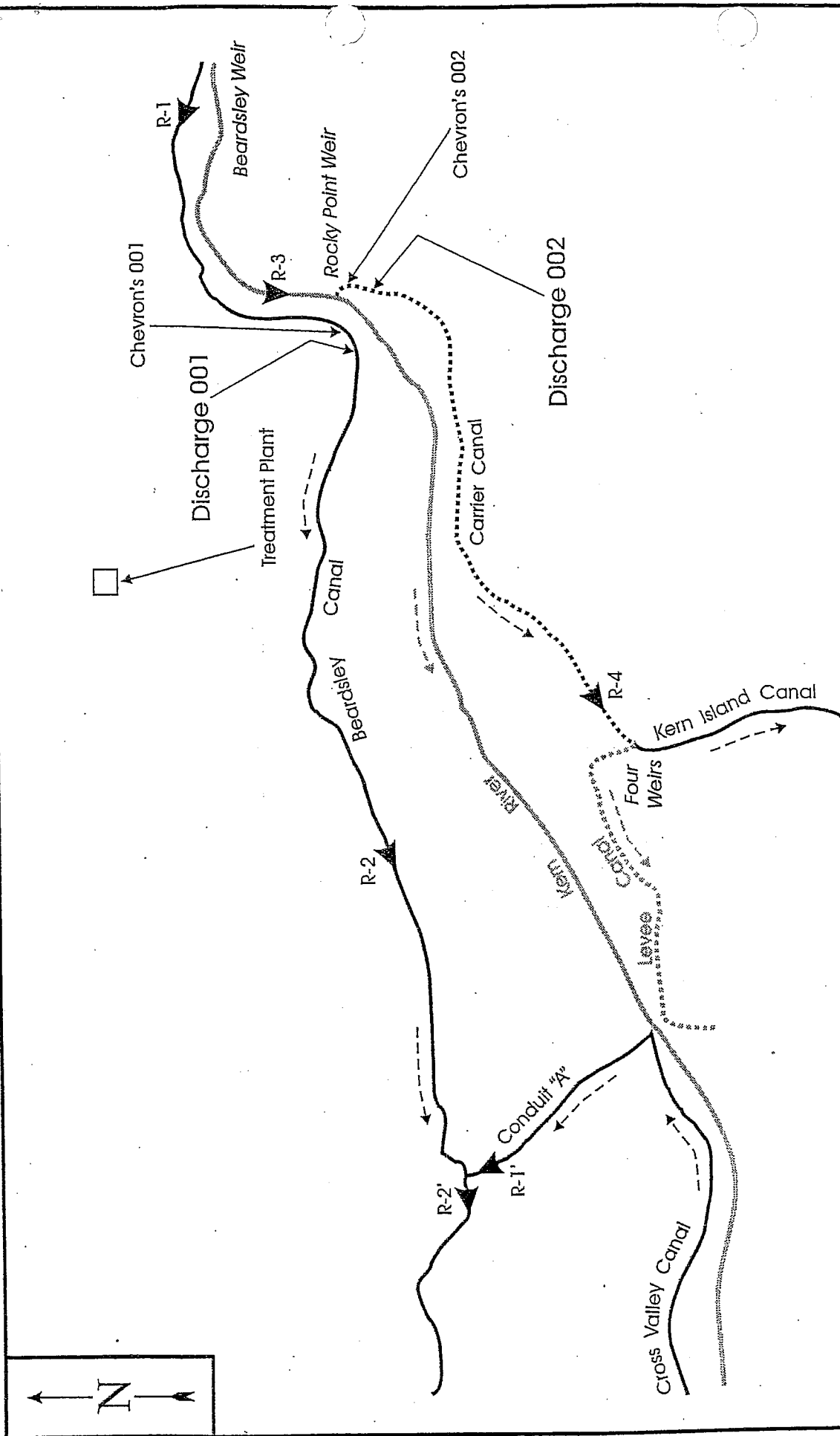
Sections 5 and 9, T29S, R28E, MDB&M

Oil Center, 7 1/2' USGS Quad, 1954



Attachment B
Vicinity Map
Order No. R5-2002-0053
Texaco Exploration and Production Inc.
Kern River Oil Field
Kern County

Attachment C
 Discharge Points and Monitoring Locations
 Order No. R5-2002-0053
 Texaco Exploration and Production Inc.
 Kern River Oil Field
 Kern County



FACT SHEET

ORDER NO. R5-2002-0053
TEXACO EXPLORATION AND PRODUCTION INC.
KERN COUNTY OIL FIELD
KERN COUNTY

Texaco Exploration and Production Inc., (hereafter Discharger) owns and operates wastewater treatment plants serving its oil leases in the Kern River oil field immediately north of Bakersfield near the Kern River. Prior to discharge, wastewater is treated for the removal of oil, grease, and inorganic sediments. Treatment consists of mechanical separation, sedimentation, and air flotation. The treatment plants have a maximum oil and grease treatment capacity of 50 million gallons per day (mgd).

Up to 16 mgd of the produced wastewater is converted to steam by cogeneration plants and steam generators and injected for enhanced oil recovery purposes. Steam injection wells are Class II injection wells permitted by the Division of Oil, Gas, and Geothermal Resources (DOGGR). The cogeneration wastewater feed is softened for corrosion control before it is converted to steam. The softening process produces brine water which is disposed of by Class II injection wells. The remaining wastewater is discharged to either the Beardsley Canal; the Carrier Canal; Cawelo Water District's Reservoir B; injection wells permitted by DOGGR; or a combination of the above. Discharge to Cawelo Water District's Reservoir B is regulated by Waste Discharge Requirements (WDRs) Order No. 95-031 (NPDES No. CA0082295).

Discharges to the Beardsley Canal (Discharge 001) and the Carrier Canal (Discharge 002) are currently regulated by WDRs Order No. 97-124. The Discharger collects effluent samples daily for conductivity (specific electrical conductance at 25 °C, also referred to as "EC"), boron, and chloride and weekly samples for oil and grease. The monitoring results for January 2000 through November 2001 show the discharge complies with the effluent limitations of Order No. 97-124.

The Beardsley Canal is lined and originates on the Kern River at the Beardsley Weir about one mile upstream of Discharge 001. The canal becomes the Lerdo Canal about five miles downstream of Discharge 001. The Beardsley and Lerdo canals serve as a significant source of agricultural water supply to the North Kern River Water Storage District and Cawelo Water District. Total agricultural land served by the canals within these districts is about 110,000 acres of which about 40,000 acres are permanent crops that are boron-sensitive. The Beardsley Canal also serves about 10,000 acres of land south of these Districts and within the sphere of influence of the City of Bakersfield.

The Discharger collects daily samples from the Beardsley Canal and submits the results monthly. The January 2000 to November 2001 monitoring reports show that the discharge is in compliance with the Receiving Water Limitations of Order No. 97-124.

The Carrier Canal originates on the Kern River at Rocky Point Weir immediately upstream of Discharge 002. The canal serves as a significant source of agricultural water supply for the Kern Delta Water District (KDWD). The canal also supplies water to the Kern County Water Agency's (KCWA's) Water Purification Plant for municipal use. The City of Bakersfield coordinates with the Discharger and the KCWA to ensure no wastewater enters the purification plant. If wastewater is discharged to the Carrier Canal, the KCWA receives prior notification to ensure that other sources of raw water supply are used for the duration of the discharge.

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TEXACO EXPLORATION AND PRODUCTION INC.
KERN RIVER OIL FIELD
KERN COUNTY

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Chevron U.S.A., Inc. owns and operates another similar facility adjacent to the one described in this Order. The adjacent facility discharges produced water from the Kern River oil field to the Beardsley and Carrier canals. Chevron's discharge is upstream from Discharge 001 and Discharge 002. Chevron's discharges to the Beardsley and Carrier canals are regulated by WDRs Order No. R5-2002-0053 (NPDES No. CA0080853)

ARCO Western Energy (hereafter ARCO) discharged treated produced water to the Beardsley and Carrier canals. ARCO's discharges were downstream from Discharge 001 and Discharge 002. ARCO's discharges to the Beardsley and Carrier canals were regulated by WDRs Order No. 97-120 (NPDES No. CA0078280). ARCO ceased discharging to the Beardsley and Carrier canals in June 1999 and its WDRs have been rescinded.

The parent companies of Chevron and Texaco merged on 9 October 2001. The Discharger intends to eliminate the Chevron treatment plant and treat all the produced water in the Texaco treatment plant. However, wastewater may still be discharged from Chevron's discharge points after the Chevron treatment plant is closed.

The Discharger, ARCO, and Chevron developed and followed a mutually agreed Management Plan (MP) to oversee the discharges to the Beardsley and Carrier canals. The MP requires that upstream receiving water and effluent samples be collected and analyzed by a State certified laboratory contractor (contractor). The contractor determines the maximum volume of wastewater each discharger may discharge to ensure the receiving water quality downstream of the discharges remains less than 95% of the permitted limitations. In November 1992, the Regional Board reviewed and approved the MP and the Discharger began implementing it in December 1992. The MP was last updated in March 1997.

The contractor collects effluent samples daily, and water samples daily from the Beardsley Canal upstream and downstream of the discharges from the two oil companies. Boron is reportedly the determining factor in complying with the receiving water limitations. Daily analyses are used in a mass balance equation to calculate the maximum allowable flow by each oil company. If the next day's projected flow exceeds the calculated allowable flow, the contractor reportedly contacts the respective discharger to have the flow reduced. The effluent monitoring program of the proposed Order requires that a summary of the mass balance calculations be submitted to describe the assimilative capacity of the canal(s) during the discharge period.

In 1991, the three oil companies, KDWD, the City of Bakersfield, and KCWA agreed on a maximum total discharge to the Carrier Canal. The MP includes a similar mass balance equation for discharge to the Carrier Canal, except that it requires the sum of flows to the canal not exceed 15.2 mgd.

PRIORITY POLLUTANTS

Federal regulations contained in 40 CFR 122.4(d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard. USEPA adopted the

National Toxics Rule (NTR) on 5 February 1993 and the California Toxics Rule (CTR) on 18 May 2000. The NTR and CTR contain water quality standards applicable to this discharge. The State Water Resources Control Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the Implementation Policy), which contains guidance on implementation of the NTR and CTR. A list of priority pollutants is contained in the Implementation Policy.

In February 2001, the Regional Board issued a request pursuant to Water Code Section 13267 for the Discharger to submit Priority Pollutant Monitoring Data to comply with the Implementation Policy. On 4 October 2001, the Discharger submitted the first of four reports required by this request. The report showed that dioxin congeners were non-detect in the Discharger's dry weather effluent. The Discharger must still submit reports for Priority pollutants in wet and dry weather effluent and dioxin congeners in wet weather effluent. The Monitoring and Reporting Program requires the Discharger to submit these remaining reports to determine if the discharges from the Facility contain priority pollutants identified in the NTR and CTR.

BENEFICIAL USES

The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition*, (Basin Plan) identifies the beneficial uses of Poso Creek. The beneficial uses of Poso Creek, as specified in the Basin Plan, are agricultural supply, water contact recreation, noncontact water recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat, groundwater recharge, and freshwater replenishment. The beneficial uses of the Beardsley and Lerdo canals are agricultural supply and groundwater recharge. The beneficial uses of the Carrier Canal are municipal and domestic supply, agricultural supply, and groundwater recharge. The Beardsley and Carrier canals each have numerous cross connections with other canals downstream of the discharge points. The beneficial uses of these canals are similar to those of the Beardsley and Carrier canals.

EFFLUENT LIMITATIONS

The Proposed Order includes the same effluent limitations as Order No. 97-124, except for pH and the maximum daily flow limitations. The maximum daily flow limitations combine the total maximum daily flow limitations of Order No. 97-124 and Order No. 97-121. Effluent limitations are based on receiving water limitations, historical effluent quality, and the terms of the MP regarding allowable assimilative capacity in the canals.

EC, Chloride, and Boron:

These limitations are based on *Water Quality for Agriculture* by R.S. Ayers and D.W. Westcott of the Food and Agricultural Organization of the United Nations, 1976, and testimony received during the 1982 and 1985 public hearings.

Oil and Grease:

Title 40 Code of Federal Regulations (40 CFR) Part 435 (Oil and Gas Extraction Point Source Category, Agriculture and Wildlife Water Use Subcategory) specifies that produced water discharges shall not exceed 35 mg/L of oil and grease. Under no circumstances shall the Discharger operate the Facility in such a manner that oil and grease in the discharge violates any narrative limitations established by the Receiving Water Limitations of this Order. The Discharger may have to treat oil and grease to a level below 35 mg/L if a lesser oil and grease concentration is necessary to prevent a violation of receiving water limitations.

pH:

The Discharger has measured the pH of produced water from the Kern River oil field as low as 5.5. The low pH is caused by CO₂ gas dissolved in the water, which forms carbonic acid. Since the source of low pH in the effluent is from natural causes and the receiving waters have sufficient dilution capacity to preserve beneficial uses, it is appropriate to establish a lower pH effluent limit of 5.5, provided that the discharge does not lower pH in the receiving water below 6.5. The upper pH limit is established by the Basin Plan. The Basin Plan provides that the pH of surface waters shall not be depressed below 6.5, raised above 8.3, or changed at any time by more than 0.3 units from normal ambient pH.

Flow Limitations:

Order No. 97-124 established a maximum daily discharge flow limitation of 43 mgd. Order No. 97-121, issued to Chevron, established a maximum daily discharge flow limitation of 7.2 mgd. This proposed order establishes a maximum daily discharge flow limitation of 50.2 mgd for the combined effluent of the Discharger and Chevron. Thus, there is no net increase in the volume of wastewater permitted to be discharged to the Beardsley and Carrier canals. The limitation is modified in this way to give the Discharger flexibility in combining its wastewater with Chevron's.

Groundwater Limitations:

The Basin Plan contains water quality objectives for surface and ground waters in the Basin. The Basin Plan identifies the Basin as being closed. It recognizes that salt will increase over time and it includes a strategy of controlled degradation. Salinity degradation parameters for groundwater in the Poso and Kern River Groundwater Hydrographic Units are established by the Basin Plan.

The Basin Plan provides that all ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources. Antidegradation provisions of Resolution 68-16 state that changes in water quality may be allowed only if the change is consistent with maximum benefit to the people of the State. Based on public hearings in 1982 and 1985, the Regional Board determined that conditional degradation of canal waters and groundwaters was in the public interest. The Discharger supplies irrigation water that has been a benefit to farmers in the area.

PROVISIONS

The Discharger currently follows a version of the Management Plan that governs the discharge of three distinct entities to the Beardsley Canal. This version of the MP was approved in 1997. Since 1997, ARCO has ceased discharging, and by early 2002 it is anticipated that Chevron may also cease discharging. The current MP no longer accurately describes the discharge conditions to Beardsley Canal. Therefore this Order requires the Discharger to submit a revised Management Plan which accounts for the changes in discharge conditions and describes the methods employed to ensure that receiving water downstream of the discharges remains within permitted limitations and that the assimilative capacities of the Beardsley and Carrier canals are not exceeded. Upon Executive Officer approval, the provisions of the revised MP shall be followed by the Discharger.

ANTIDEGRADATION AND CEQA CONSIDERATIONS

The permitted discharge is consistent with the antidegradation provisions of State Water Resources Control Board Resolution No. 68-16. This Order provides for no increase in the volume and mass of pollutants discharged. Based on the information available thus far on the discharge and discharge area, the discharge of treated wastewater to the Beardsley and Carrier canals will not affect the water quality of the underlying aquifer, except for EC as allowed by the Basin Plan.

The action to adopt an NPDES permit for the existing discharge into the Beardsley and Carrier canals is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.), in accordance with Section 13389 of the California Water Code.

GEA:fmc:4 /26/02